What is claimed is:

1. A method for producing a substrate supporting table, said method comprising the steps of:

forming a dielectric film on a base; and

forming a plurality of protrusions of ceramic on said dielectric film by thermal-spraying the ceramic onto said dielectric film via an aperture plate having a plurality of apertures.

2. A method as set forth in claim 1, further comprising a step of forming at least one intermediate layer between said base and said dielectric film.

3. A method as set forth in claim 1, wherein said step of forming said protrusions is carried out with said aperture plate held in a position apart from said dielectric film.

4. A method as set forth in claim 3, wherein said aperture plate is held in said position apart from said dielectric film by inserting a spacer member between said aperture plate and said dielectric film, said spacer member corresponding to the outside of peripheries of said apertures of said aperture plate.

5. A method for producing a substrate supporting table, said method comprising the steps of:

forming a first dielectric film on a base;

forming a conductive layer on said first dielectric film;

forming a second dielectric film on said conductive layer; and

forming a plurality of protrusions of ceramic on said second dielectric film by thermal-spraying the ceramic onto said second dielectric film via an aperture plate having a plurality of apertures.

6. A method as set forth in claim 5, further comprising a step of forming at least one intermediate layer between said base and said first dielectric film.

7. A method as set forth in claim 5, wherein said step of forming said protrusions is carried out with said aperture plate held in a position apart from said second dielectric film.

8. A method as set forth in claim 7, wherein said aperture plate is held in said position apart from said second dielectric film by inserting a spacer member between said aperture plate and said second dielectric film, said spacer member corresponding to the outside of peripheries of said apertures of said aperture plate.

9. A method as set forth in claim 5, further comprising a step of forming at least one coating layer on said second dielectric film before said step of forming said protrusions.

10. A substrate supporting table comprising:

a base;

a dielectric film formed on said base; and

a plurality of protrusions of ceramic formed on said dielectric film by thermal-spraying.

11. A substrate supporting table as set forth in claim 10, wherein said base functions as an electrostatic electrode of an electrostatic chuck.

12. A substrate supporting table as set forth in claim 10, wherein said protrusions have a height of 50 to 100 μm.

13. A substrate supporting table as set forth in claim 10, wherein top faces of said protrusions consist of curved surfaces.

14. A substrate supporting table comprising:

a base;

a first dielectric film formed on said base;

a conductive layer formed on said first dielectric film;

a second dielectric film formed on said conductive layer; and

a plurality of protrusions of ceramic formed on said second dielectric film by thermal-spraying.

15. A substrate supporting table as set forth in claim 14, wherein said conductive layer functions as an electrostatic electrode of an electrostatic chuck.

16. A substrate supporting table as set forth in claim 14, wherein top faces of said protrusions consist of curved surfaces.

17. A substrate supporting table as set forth in claim 14, wherein said protrusions have a height of 50 to 100 μm.

18. A processing system comprising:

a processing vessel for housing therein a substrate;

a substrate supporting table, provided in said processing vessel, for supporting thereon said substrate;

gas supply means for supplying a process gas into said processing vessel; and

exhaust means for exhausting gas from said processing vessel,

wherein said substrate supporting table has a base, a dielectric film formed on said base, and a plurality of protrusions of ceramic formed on said dielectric film by thermal-spraying.

19. A processing system comprising:

a processing vessel for housing therein a substrate;

a substrate supporting table, provided in said processing vessel, for supporting thereon said substrate;

gas supply means for supplying a process gas into said

processing vessel; and

exhaust means for exhausting gas from said processing vessel,

wherein said substrate supporting table has a base, a first dielectric film formed on said base, a conductive layer formed on said first dielectric film, a second dielectric film formed on said conductive layer, and a plurality of protrusions of ceramic formed on said second dielectric film by thermal-spraying.

20. A processing system comprising:

a processing vessel for housing therein a substrate;

a substrate supporting table, provided in said processing vessel, for supporting thereon said substrate;

gas supply means for supplying a process gas into said processing vessel; and

exhaust means for exhausting gas from said processing vessel,

wherein said substrate supporting table has a rectangular base, and a plurality of protrusions formed on said base, and

said protrusions are arranged so as to form an orthogonal lattice on said base, an angle between one axis of said orthogonal lattice and one side of said base being from more than 0° to not more than 45° .

21. A processing system as set forth in claim 20, wherein said protrusions have a shape point-contacting said substrate.

22. A processing system as set forth in claim 20, wherein said substrate supporting table has a heat-transfer fluid passage being open in the surface thereof as a plurality of outlets.

23. A processing system as set forth in claim 22, wherein a stepped portion is provided on the surface of said substrate supporting table so as to surround outward of said outlets,

said stepped portion having a height larger than that of said protrusions.

24. A processing system as set forth in claim 22, wherein a stepped portion is provided on the surface of said substrate supporting table so as to extend along the outer peripheral portion of said substrate supporting table, said stepped portion having a height larger than that of said protrusions, and

a groove communicated with a region inside of said stepped portion is formed in the top face of said stepped portion, said outlets being arranged in said groove.

25. A processing system comprising:

a processing vessel for housing therein a substrate;

a substrate supporting table, provided in said processing vessel, for supporting thereon said substrate;

gas supply means for supplying a process gas into said processing vessel; and

exhaust means for exhausting gas from said processing vessel,

wherein said substrate supporting table has a rectangular base, and a plurality of protrusions formed on said base in an irregular arrangement.

26. A processing system as set forth in claim 25, wherein said protrusions have a shape point-contacting said substrate.

27. A processing system as set forth in claim 25, wherein said substrate supporting table has a heat-transfer fluid passage being open in the surface thereof as a plurality of outlets.

28. A processing system as set forth in claim 27, wherein a stepped portion is provided on the surface of said substrate supporting table so as to surround outward of said outlets, said stepped portion having a height larger than that of said

protrusions.

29. A processing system as set forth in claim 27, wherein a stepped portion is provided on the surface of said substrate supporting table so as to extend along the outer peripheral portion of said substrate supporting table, said stepped portion having a height larger than that of said protrusions, and

a groove communicated with a region inside of said stepped portion is formed in the top face of said stepped portion, said outlets being arranged in said groove.